

Applicant: Desgagne et al.
Application No.: 10/828,665

REMARKS

After the foregoing Amendment, Claims 1 - 13 are currently pending in this application. Claim 1 has been amended to more particularly distinguish it from the cited references. Claim 6 was amended to correct an informality. Applicants submit that no new matter has been introduced into the application by these amendments.

Claim Rejections - 35 USC §102

Claims 1-5 and 8-11 stand rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent Appln. US 2002/0105913 to Miya, (hereinafter referred to as "Miya").

The present invention is a method and apparatus for integrating resource allocation between Time Division Duplex (TDD) and Frequency Division Duplex (FDD) in wireless communication systems.

Regarding claim 1, claim 1 as amended discloses a method for integrating resources between TDD and FDD wherein radio access bearer (RAB) requests, i.e., call-setup requests, are received in a radio network controller (RNC). These requests are processed for estimating a degree of symmetry in uplink and downlink connections required to support communications associated with the RAB requests. Based on the estimated symmetry, the RNC selects to allocate FDD or TDD resources to service the requested connections.

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Conversely, Miya discloses a method for a terminal apparatus to connect to a base station wherein the terminal apparatus first monitors signals transmitted by a plurality of base stations to determine the types of services provided by the base stations. The terminal apparatus further measures a quality of service provided by the base station (see page 2, paragraph [0024] of Miya). The terminal apparatus then determines which base station, based on its desired services and quality measurements, it prefers to be connected to. The measurements and a connection request are then sent to the base station, wherein the base station determines whether it will connect to the terminal and which type of system is best suited to service the terminal (see pages 2-3, paragraphs [0032]-[0034] of Miya).

Miya fails to disclose receiving connection requests in an RNC and determining which type of system is best suited to service the request in the RNC. Further, Miya fails to disclose estimating a degree of symmetry in uplink and downlink connections in order to determine whether to provide a TDD or FDD connection to a requesting apparatus. Miya depends on a terminal apparatus to monitor system conditions and decide on its own which base station is preferred (see page 3, paragraph [0039]). Additionally, Miya requires a base station to further decide whether to connect to the terminal apparatus and with which type of system resources (see page 3, paragraph [0042]).

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Accordingly, since Miya fails to disclose all of the features of claim 1, it is respectfully submitted that claim 1 is not anticipated by Miya.

Claims 2-5 are dependent upon claim 1, which the Applicants submit are allowable for the same reasons provided above.

Regarding claim 8, claim 8 discloses a system for integrating resources between TDD and FDD in wireless communication systems. The system comprises a core network (CN), a TDD-RNC, a FDD-RNC and a TDD-FDD selector for receiving RAB requests and for estimating symmetry status of uplink and downlink connections required to support RAB assignment requests.

Conversely, the system disclosed by Miya fails to disclose both a TDD-RNC and a FDD-RNC. Further, Miya fails to disclose a TDD-FDD selector configured to estimate uplink and downlink connections required to support RAB assignment requests. Accordingly, since Miya fails to disclose all of the features of claim 8, it is respectfully submitted that claim 8 is not anticipated by Miya.

Claims 9-11 are dependent upon claim 8, which the Applicants submit are allowable for the same reasons provided with regard to claim 8.

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Claim Rejections - 35 USC §103

Claims 6, 7, 12, and 13 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Miya in view of U.S. Patent Appln. US 2002/0049062 to Petersen, (hereinafter referred to as "Petersen").

Claims 6 and 7 disclose a method wherein a FDD-RNC is directly connected to a core network and a TDD-RNC is indirectly connected to the core network through the FDD-RNC. Conversely, Petersen discloses a system with one or more RNCs, each directly connected to a core network (see Figure 1 of Petersen). Further, since claims 6 and 7 depend from claim 1, which as previously discussed, is not anticipated by Miya, it is respectfully submitted that combining Petersen with Miya would not have been obvious. It is further submitted that such a combination would not yield the method disclosed by claims 6 and 7 of the present invention.

Claims 12 and 13 disclose a system wherein an FDD-RNC includes a TDD serving network controller. Conversely, Petersen discloses a system with one or more RNCs, each directly connected to a core network (see Figure 1 of Petersen). Petersen does not disclose a TDD serving network controller. Further, since claims 12 and 13 depend from claim 8, which as previously discussed, is not anticipated by Miya, it is respectfully submitted that combining Petersen with Miya would not have been obvious. It is further submitted that such a combination would not yield the system disclosed by claims 12 and 13 of the present invention.

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Based on the arguments presented above, withdrawal of the rejection of claims 1-13 is respectfully requested.

Conclusion

If the Examiner believes that any additional minor formal matters need to be addressed in order to place this application in condition for allowance, or that a telephone interview will help to materially advance the prosecution of this application, the Examiner is invited to contact the undersigned by telephone at the Examiner's convenience.

In view of the foregoing amendment and remarks, Applicants respectfully submit that the present application, including claims 1 - 13, is in condition for allowance and a notice to that effect is respectfully requested.

Respectfully submitted,

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